What is claimed is:

1. A cutting tool insert comprising a hard substrate and a plurality of coatings on at least a portion of said substrate, said plurality of coatings including:

a first coating of at least 2 microns deposited on said substrate, said first coating comprising at least one of a metal carbide, a metal nitride, and a metal carbonitride of a metal selected from the group consisting of zirconium and hafnium; and

a second coating comprising at least one of a metal carbide, metal nitride, and metal oxide of a metal selected from groups IIIA, IVB, VB, and VIB of the periodic table.

2. The cutting tool insert of claim 1, wherein said first coating is at least 2 microns up to 5 microns.

3. The cutting tool insert of claim 1, wherein:

said first coating is selected from the group consisting of zirconium nitride and hafnium nitride; and

said second coating is one of aluminum oxide and titanium nitride and is 1 to 10 microns thick.

4. The cutting tool insert of claim 1, further comprising:

a third coating that is a coating of a metal carbonitride 2 to 6 microns thick, said third coating intermediate said first coating and said second coating and in contact with said second coating.

5. The cutting tool insert of claim 4, wherein said metal carbonitride of said third coating has a nitrogen to carbon atomic ratio between 0.7 and 0.95 which causes said metal carbonitride of said third coating to form projections into said second coating to thereby improve adherence and crater resistance of said second coating.

6. The cutting tool insert of claim 4, wherein:

said first coating is a coating of hafnium nitride at least 4 microns thick;

said second coating is a coating of aluminum oxide 2 to 4 microns thick; and

said third coating is a coating of titanium carbonitride 3 to 4 microns thick.

7. The cutting tool insert of claim 6, wherein said plurality of coatings further comprises:

a fourth coating that is a coating of titanium nitride at least 1 micron thick, said fourth coating overlying said second coating.

8. A cutting tool insert comprising a hard substrate and a plurality of coatings on at least a portion of said substrate, said plurality of coatings including:

a first coating deposited on said substrate and comprising at least one of a metal carbide, a metal nitride, and a metal carbonitride, wherein said metal is selected from the group consisting of zirconium and hafnium; and

a second coating comprising a ceramic; and

a third coating, intermediate said first coating and said second coating and in contact with said second coating, said third coating comprising a metal carbonitride having a nitrogen to carbon atomic ratio between 0.7 and 0.95 which causes said metal carbonitride to form projections into said ceramic coating to thereby improve adherence and crater resistance of said second coating.

9. The cutting tool insert of claim 8, wherein said first coating is 2 to 5 microns thick.

10. The cutting tool insert of claim 8, wherein said third coating is a coating of titanium carbonitride.

11. The cutting tool insert of claim 10, wherein said third coating is 2 to 5 microns thick.

12. The cutting tool insert of claim 8, wherein said metal carbonitride of said third coating has a nitrogen content of 70% to 90% based upon the total nitrogen and carbon content of said metal carbonitride layer.

13. The cutting tool insert of claim 8, wherein said metal carbonitride of said third coating has a nitrogen to carbon atomic ratio of 0.75 to 0.95 as determined by x-ray diffraction.

14. The cutting tool insert of claim 8, wherein:

said first coating is a coating of hafnium nitride 2 to 5 microns thick;

said second coating is a coating of aluminum oxide 1 to 10 microns thick, and

said third coating is a coating of titanium carbonitride 2 to 4 microns thick,

and said plurality of coatings optionally further includes a fourth coating of at least one of titanium nitride and titanium carbide 1 to 4 microns thick overlaying and in contact with said second coating.

15. The cutting tool insert of claim 14, wherein:

said second coating is about 6 microns thick;

said third coating is about 3 microns thick; and

said optional fourth coating is about 2 microns thick.

16. The cutting tool insert of claim 8, wherein said metal carbonitride is of a metal selected from the elements of groups IVB, VB, and VIB of the periodic table.

17. The cutting tool insert of claim 16, wherein said substrate comprises 3 to 30 weight percent binder and 70 to 97 weight percent of a carbide selected from the group consisting of tungsten carbide, titanium carbide, tantalum carbide, niobium carbide, molybdenum carbide, zirconium carbide, and hafnium carbide.

18. The cutting tool insert of claim 17, wherein said substrate further comprises a nitride selected from the group consisting of titanium nitride, tantalum nitride, niobium nitride, molybdenum nitride, zirconium nitride, and hafnium nitride.

19. The cutting tool insert of claim 17, wherein a surface layer of said substrate is enriched in said binder relative to a remainder of said substrate.

20. A method of making a cutting tool insert including a hard substrate and a plurality of coatings, the method comprising:

applying a first coating of at least 2 microns to at least a portion of the substrate, the first coating comprising at least one of a metal carbide, a metal nitride, and a metal carbonitride of a metal selected from the group consisting of zirconium and hafnium; and

applying a second coating, said second coating comprising at least one of a metal carbide, metal nitride, and metal oxide of a metal selected from groups IIIA, IVB, VB, and VIB of the periodic table.

21. The method of claim 20, wherein said first coating is at least 2 microns up to 5 microns.

22. The method of claim 20, further comprising:

applying a third coating, intermediate said first coating and said second coating and in contact with said second coating, said third coating of a metal carbonitride 2 to 6 microns thick.